

Lifetime Limited Warranty

The duration of the warranty for the 100BASE-TX Distance Extender Module (3C16683) is lifetime.

Advance hardware exchange is available during the first year from your date of purchase in accordance with 3Com's standard terms and conditions for such service. After the first year, the warranty reverts to 3Com's standard lifetime limited warranty.

To qualify for the lifetime limited warranty and the advance hardware exchange, you must submit the appropriate product warranty registration card to 3Com, otherwise this product will be warranted for a period of one (1) year without advance hardware exchange.

HARDWARE: 3Com warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following lengths of time from the date of purchase from 3Com or its Authorized Reseller:

Network adapters:	Lifetime
Other hardware products:	One year unless otherwise specified above
Spare parts and spares kits:	90 days

If a product does not operate as warranted above during the applicable warranty period, 3Com shall, at its option and expense, repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

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GOVERNING LAW: This Limited Warranty shall be governed by the laws of the state of California.

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100BASE-TX
DISTANCE EXTENDER MODULE
USER GUIDE

100BASE-TX Distance Extender Module

The 100BASE-TX Distance Extender Module (3C16683) is designed for use with 3Com's SuperStack® II Dual Speed Hub 500 12- and 24-port versions (3C16610 and 3C16611).

When installed in a Dual Speed Hub 500 unit, the Module provides a single 100Mbps Fast Ethernet twisted pair 802.1D bridged port. You can use this port to provide a high-speed connection, up to 100m long, to another segment of your network infrastructure, or to a local server or endstation.

The Module also enables you to overcome the Fast Ethernet network design limitations by forming chains of almost limitless numbers of hubs; each link of category 5 cable being up to 100m in length.

 This Module operates at half duplex (HD) mode only.

Examples of network configurations and more information about Fast Ethernet configuration rules can be found in the hub's user guide.

When the Module is fitted in a managed Dual Speed Hub 500 unit, it provides traffic statistics, link status and duplex mode. You may also enable and disable the port.

Technical Specification

Forwarding Rate: 148,800 frames per second.

Forwarding Mode: fragment-free.

Operating temperature: 0–50°C (32–122°F).

Humidity: 0–95% non-condensing.

Power consumption: 5W maximum.

The Module is VLAN and LSA compatible. It filters all frames smaller than 64 bytes in size. Frames greater than 1522 bytes are forwarded, unless there is traffic congestion, when they are rejected. It forwards all other traffic, such as normal traffic and multicast frames. No address filtering is performed.

Standards

Functional	ISO/IEC 8802-3 IEEE 802.1D
Safety	UL 1950 EN 60950 CSA 22.2 #950
Environmental	EN 60068
EMC	EN55022 Class B FCC Part 15 Class A ICES-003 Class A EN50082-1 AS/NZS 3548 Class B VCCI Class B

Electromagnetic Compatibility

FCC Statement:


This equipment has been tested with a Class A computing device and has been found to comply with part 15 of FCC Rules. Operation in a residential area may cause unacceptable interference to radio and TV receptions requiring the operator to take whatever steps are necessary to correct the interference.

CSA Statement:

This Class A digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Handling the Module

 **CAUTION:** The Module can easily be damaged by electrostatic discharge.

To prevent damage, please observe the following:

- Do not remove the Module from its packaging until you are ready to install it into the hub.
- Do not touch any of the pins, connections or components on the Module.
- Handle the Module only by its edges and front panel.
- Always wear an anti-static wristband connected to a suitable earth point.
- Always store or transport modules in appropriate anti-static packaging.

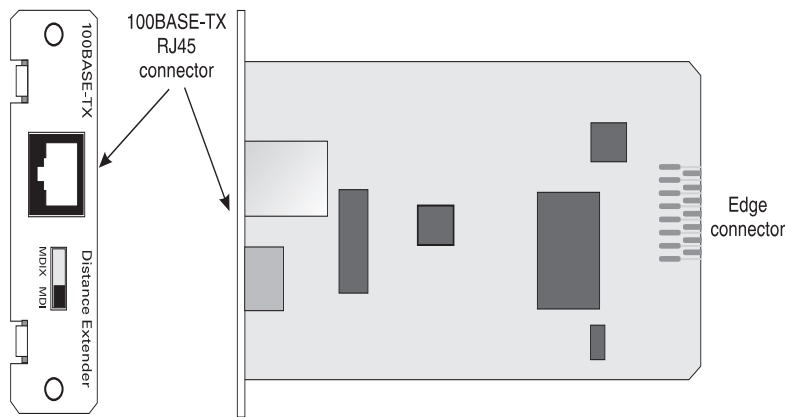


Figure 1 100BASE-TX Distance Extender Module

Important Safety Information



WARNING: Installation and removal of the Module must be carried out by qualified personnel only. Before installing the Module into a hub, you must first disconnect the hub from the mains power supply. For full safety instructions, refer to the user guide that accompanies the hub.

L'information de Sécurité Importante



AVERTISSEMENT: L'installation et l'enlèvement de l'unité doivent être faits seulement par le personnel qualifié. Avant d'installer le module dans une unité ou de l'en retirer, vous devez d'abord déconnecter les alimentations électriques de l'unité. Pour plus de détails sur les instructions de sécurité, veuillez vous référer au guide utilisateur qui accompagne cette unité.

Wichtige Sicherheitsinformationen



WARNING: Ein- und Ausbau des Gerätes ist nur von Fachpersonal vorzunehmen. Vor der Installation des Module in das Gerät muß das Gerät vom Netz getrennt werden. Bitte beachten Sie die Sicherheitsinformationen im Handbuch des Gerät.

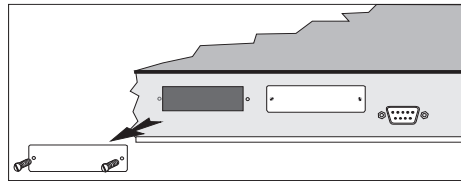
Installing the Module into a Hub



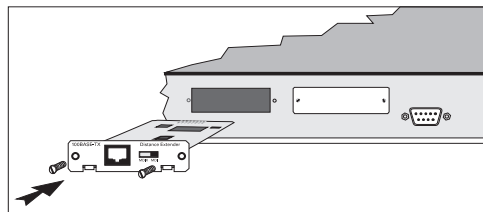
CAUTION: Do not install the Module in unsuitable hubs such as those in the Hub 10, PS Hub, and Hub 100 ranges. Contact your supplier for advice if necessary.

- 1 Ensure that the hub is disconnected from the mains power supply, and you are wearing an anti-static wristband connected to a suitable earth point.

- 2 Place the hub on a flat surface. Using a suitable screwdriver, remove one blanking plate from the rear of the hub to reveal a slot for the Module. Do not remove any other screws from the rear of the hub.



- 3 Keep the blanking plate in a safe place. If you remove the Module, you must replace the blanking plate to prevent dust and debris entering the hub and maintain cooling air circulation.
- 4 Hold the Module so that the text on the front panel is upright, and slide it into the hub, ensuring the edge connector is fully engaged. The front panel of the Module should lie flush against the rear panel of the hub. Fix the front panel of the Module to the hub using the two screws from the blanking plate.



- 5 Power up the hub.
- 6 Check the LEDs on the hub to ensure that the Module is operating correctly.

Setting the MDI/MDIX Switch

The Module has a slide switch on the front panel for configuring the port as MDI or MDIX. The Module is supplied with the switch set to MDI.

The general rule for setting the switch is:

- LEFT — Set to MDIX (cross-over) — for connecting the Module port to an endstation or server, using a 'straight through' cable.
- RIGHT (factory setting) — Set to MDI — for connecting the Module port to an MDIX port on another hub or switch, using a 'straight through' cable.

Connecting the Module

- 1 Insert the RJ45 connector on your cable into the socket on the Module. Connect the other end of the cable to an appropriate device with a 100Mbps Fast Ethernet 100BASE-TX twisted pair interface. The 100BASE-TX port supports Category 5 cable over a maximum length of 100m (328ft).

LEDs

LEDs on the front of the hub indicate the Module status. Refer to the user guide that accompanies the Dual Speed Hub 500 unit for a description of the LED behavior.

Using the Distance Extender

The Distance Extender will connect to any Fast Ethernet device with a twisted pair port. Links of Category 5 cable may be a maximum length of 100m.

You can connect two or more Dual Speed Hub 500 units using a Distance Extender at one end of the link to form chains of units or stacks. Figure 2 shows the process of chain building.

You may install Distance Extender Modules in any combination of transceiver slots within a Dual Speed Hub 500 stack.

Take care not to create loops in the network.

For distances greater than 100m, use the 100BASE-FX Distance Extender.

Problem Solving

If you suspect a problem, carry out the following checks before contacting your supplier:

- Ensure the unit in which the Module is fitted is powered up.
- Ensure the Module is correctly installed.
- Ensure that the device at the far end of the segment is powered up and operating correctly.
- Ensure you are using the correct cable.
- Ensure that the cable and connectors are free from damage and that the RJ45 connector at each end of the cable is correctly engaged in its appropriate socket.
- Check that the MDI/MDIX setting is correct for your configuration. See "Setting the MDI/MDIX Switch", above.

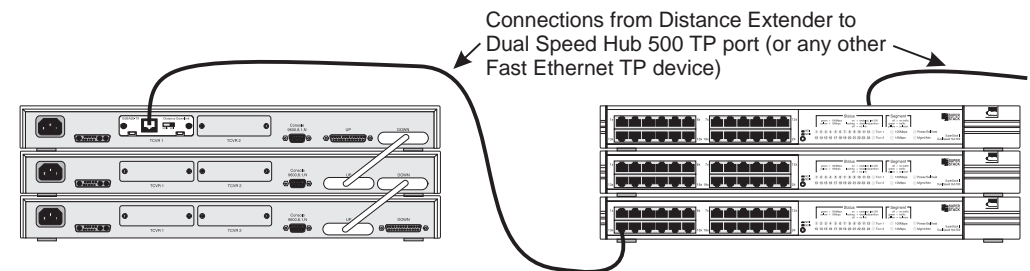


Figure 2 Chaining Dual Speed Hub 500 stacks with 100BASE-TX Distance Extender Modules